

## 5 Claims

1. A modular universal adapter telemedicine system comprising
  - a) function modules variable in number and function, for diagnostic examinations, communication and identification;
  - 10 b) a universal adapter to connect the function modules to a
  - c) process module to output, process and transmit data.
2. A modular universal adapter telemedicine system according to claim 1, **characterized in that** the data collected during use  
15 of the function modules are measurable medical parameters and/or identification features and/or audiovisual data and/or geographic position data.
3. A modular universal adapter telemedicine system according to claim 1 or 2, **characterized in that** at least one function  
20 module, in particular all function modules, can be operated in a simplified uniform manner using the universal adapter by means of a two-knob controller.
- 25 4. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** at least one diagnostic function module is provided for the purposes of medical diagnostic examinations.
- 30 5. A modular universal adapter telemedicine system according to claim 4, **characterized in that** the diagnostic function module is an electrocardiograph, a pulsoximeter, a

spirometer, a blood pressure manometer, a thermometer, a cardiocograph, a heart beat monitor (event recorder), a blood sugar measuring device and/or similar.

- 5    6. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** the function modules include at least one identification module to record identification features of a patient.
- 10   7. A modular universal adapter telemedicine system according to claim 6, **characterized in that** the identification module involves a function to record biometric data of the patient (e.g. fingerprints, iris) and/or to read identification cards.
- 15   8. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** the function modules include at least one communication module for audiovisual communication.
- 20   9. A modular universal adapter telemedicine system according to claim 8, **characterized in that** the communication module includes functions to record speech, image and video data and to transmit the data in real time.
- 25   10. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** the function modules include a locating module to determine the geographic position of the telemedicine system.
- 30   11. A modular universal adapter telemedicine system according to claim 10, **characterized in that** the locating module is a GPS

module to determine and transmit geographic position data.

12. A modular universal adapter telemedicine system according to claim 11, **characterized in that** the GPS module is integrated  
5 into the universal adapter.
13. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** the process module includes means to process, output and  
10 transmit data, in particular communication devices (cellular telephones), computers, printers and the like.
14. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** at least  
15 one function module, in particular all function modules, and the universal adapter have their own internal accumulator.
15. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** at least  
20 one function module, in particular all function modules, and the universal adapter have a universal I/O connection via which data transmission between the modules and/or charging of the function modules' accumulators takes place.
- 25 16. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** the universal adapter includes a wireless interface, in particular WLAN or Bluetooth, via which data can be  
30 exchanged with the process module and/or with function modules equipped with wireless interfaces, wherein data to the process module can also be transmitted by a wirebound I/O connection.

17. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** the universal adapter includes a function to automatically register connected function modules.
18. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** at least one function module, in particular all function modules, and the universal adapter have a central processor and non-mechanical storage elements to store data temporarily and/or long-term.
19. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** at least one function module, in particular all function modules, have two control elements and a plurality of acoustic/visual signal elements and a function display and/or a display on the surface of the module each.
20. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** the universal adapter has four control elements and a plurality of acoustic/visual signal elements and a function display and/or a display on the surface of the module.
21. A modular universal adapter telemedicine system according to claim 20, **characterized in that** at least one function module, in particular all function modules, can simplified be operated by two of the four control elements located on the surface of the universal adapter with regard to basic functions such as data recording, data transmission and

status inquiries.

22. A modular universal adapter telemedicine system according to claim 20, **characterized in that** an extended operation and configuration of at least one function module, in particular all function modules, and the universal adapter can be performed via the four control elements located on the surface of the universal adapter.
23. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** the universal adapter and the function modules can be operated in different user modes.
24. A modular universal adapter telemedicine system according to claim 23, **characterized in that** user modes are available for the patient, for the physician, for multiple use by patients and/or for remote access by the physician's receiving center.
25. A modular universal adapter telemedicine system according to claim 23 or 24, **characterized in that** the process module includes a function to change the user mode of the universal adapter.
26. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** at least one function module, in particular all function modules, can optionally be used either (a) with the universal adapter and a process module to transmit data directly or (b) separately without the universal adapter.
27. A modular universal adapter telemedicine system according to

one of the preceding claims, **characterized in that** the possibility of wireless communication is provided between the universal adapters of a plurality of modular universal adapter telemedicine systems, and common use of a process module can be achieved by a wireless or wirebound transmission path to the process module.

28. A modular universal adapter telemedicine system according to one of the preceding claims, **characterized in that** user software for monitoring diagnostic and therapeutic schemes and for medical monitoring is integrated into the universal adapter, taking into account the function modules registered.